

CLAIMS

1. A method of controlling communication resources in a transmission from a first network element to a second network element, where the communication resources are allocated by a controller, comprising:

monitoring an indication of future need of communication resources in said first network element;

sending the indication from the first network element to the controller;

controlling the communication resources between the first network element and the second network element based on this indication.

2. The method according to claim 1, wherein the first network element is connected to the controller by way of the second network element.

3. The method according to claim 1, wherein the indication includes information about a transmit buffer of the first network element.

4. The method according to claim 1, wherein the indication includes information on the additional resources needed for said first network element.

5. The method according to claim 3, wherein the indication includes a quantization scheme whose values correspond to predefined amounts of resources.

6. The method according to claim 4, wherein the indication includes information about a transmit buffer of the first network element

1 7. A method according to claim 1, wherein the first network element is a mobile
2 station and the second network element is a base station of a wireless communication network.

1 8. A system for controlling communication resources in a network, comprising:
2 a plurality of first stations;
3 a second station connected to said plurality of first stations through a plurality
4 of communication links;
5 a controller for controlling the allocation of said communication resources
6 among said links;
7 said allocation being performed in accordance with information transmitted
8 from said first stations which indicates a need for communication resources.

1 9. The system according to claim 8, wherein said controller is part of said base
2 station.

1 10. The system according to claim 8, wherein said first stations are mobile stations
2 in a wireless network.

1 11. The system according to claim 8, wherein each of said plurality of first stations
2 includes:
3 a data generator;
4 a data queue;
5 an encoder for generating a code representative of the length of the data queue;

1 a transmitter for transmitting said data with said code included therein as a
2 field.

3 12. The system according to claim 8, wherein said base station includes a receiver
4 for receiving a transmission and producing data;
5 a decoder for decoding a field of said data and producing an indication of the
6 data queue in an associated first station;

7 wherein said controller receives said information from said decoder and
8 allocates communication resources in accordance therewith.

1 13. The system according to claim 8, wherein said indication is provided for each
2 data block transmitted.